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**Detroit
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July 23, 1984
EF2-69284

DMB

Mr. James G. Keppler
Regional Administrator
Region III
U. S. Nuclear Regulatory Commission
799 Roosevelt Road
Glen Ellyn, Illinois 60137

Dear Mr. Keppler:

Reference: (1) Fermi 2
NRC Docket No. 50-341
(2) Letter, D. A. Wells to J. G. Keppler,
April 9, 1982, EF2-57462
Subject: Final Report of 10CFR50.55(e) Item 61
"Undersized Battery Cables"

This is Detroit Edison's final report concerning undersized battery cables. Item 61 was originally reported as a potential deficiency on March 12, 1982, and subsequently documented in Reference (2).

Description of the Deficiency

During a review of the DC System at degraded voltage conditions, it was discovered that some cables were undersized. The undersized cables fell into two major categories:

1. Power Cables to Motor Operated Valves

The cable size did not allow for voltage drops encountered during locked rotor currents as the motor started and prior to the operation of the valve torque switches. Analysis of these circuits indicated voltage levels at the valve motors were below the starting voltages required for the valve motors.

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2. Control Circuits to Remotely Located Switchgear:

The cable size and length did not allow for voltage drops associated with currents required to ensure proper operation of the trip and closing coils in the affected switchgear.

Analysis of Safety Implications

Undersized cables may not have provided sufficient voltage to ensure operation of the affected switchgear and motor operated valves.

Corrective Action

Detroit Edison conducted an analysis of all DC motor control center cables and switchgear control cables to locate those cables that were undersized for the intended service. The modifications consist of the following:

- o Design changes were issued which require larger size cables for the affected motor operated valves.
- o Design changes were initiated to install interposing relays in the trip/close circuits of the affected switchgear. These relays will ensure that the minimum voltage at the trip/close coils is adequate for reliable operation.

Field work associated with the above design changes is in the final stages of completion.

This is Detroit Edison's final report on this item. If you have questions concerning this matter, please contact Mr. Lewis P. Bregni, (313) 586-5083.

Sincerely,

cc: Mr. P. M. Byron
Mr. R. C. DeYoung
Mr. R. C. Knop

